Chapter 9

# Broadening Housing Choices

*by Randall Arendt*

This chapter describes and illustrates a number of alternatives to standard market-rate housing such as modest bungalows and other types of houses found in "pocket neighborhoods", rural and urban cohousing and their subset senior cohousing, accessory dwelling units, and various types of affordable homes including detached, semi-detached, and fully attached. As in other chapters, the intent is to encourage town residents and officials to increase the choice of housing types available by widening perspectives and sharing information about various alternatives that might not yet be permitted or encouraged in their communities.

## Pocket Neighborhoods

A pocket neighborhood is "a cohesive cluster of homes gathered around some kind of common ground within a larger surrounding neighborhood" where a dozen or so neighbors may interact on a daily basis around a shared garden, quiet street or alley, according to Ross Chapin, an architect from Langley WA and a leading designer of numerous such housing groups. They are built at a scale "where meaningful 'neighborly' relationships are fostered… It is the physical basis for creating community with one's neighbors". The first contemporary example, Third Street Cottages in Langley, designed by Chapin, is further described in Chapter 20.

Chapin's work has been influenced by the writings of Christopher Alexander, particularly Pattern 37 referring to housing clusters in *A Pattern Language*. (Alexander, 1977). As he recalls, "Alexander's ideas helped me understand how buildings and outdoor spaces can become 'real' and 'alive', and how they can support or hinder our relationships as human social beings." These small groups of homes exemplify Alexander's precept that "The basic building block of community is the cluster of a few houses gathered together to foster neighborly relationships." www.pocket-neighborhoods.net/beginnings.html

The history of pocket neighborhoods is long and varied, and one might argue that the layout of Plimoth Plantation in Plymouth MA, with its central pedestrian lane, often used for gathering and conversing, is the first example in this country. The summer colonies created by religious groups in New England during the mid-19$^{th}$ century provide more fine early examples. The northern end of the 1849 retreat in Northport, Maine known as Bayside, where multiple greens enhance 187 neighborhood homes (Fig. 9-1) is a good example.

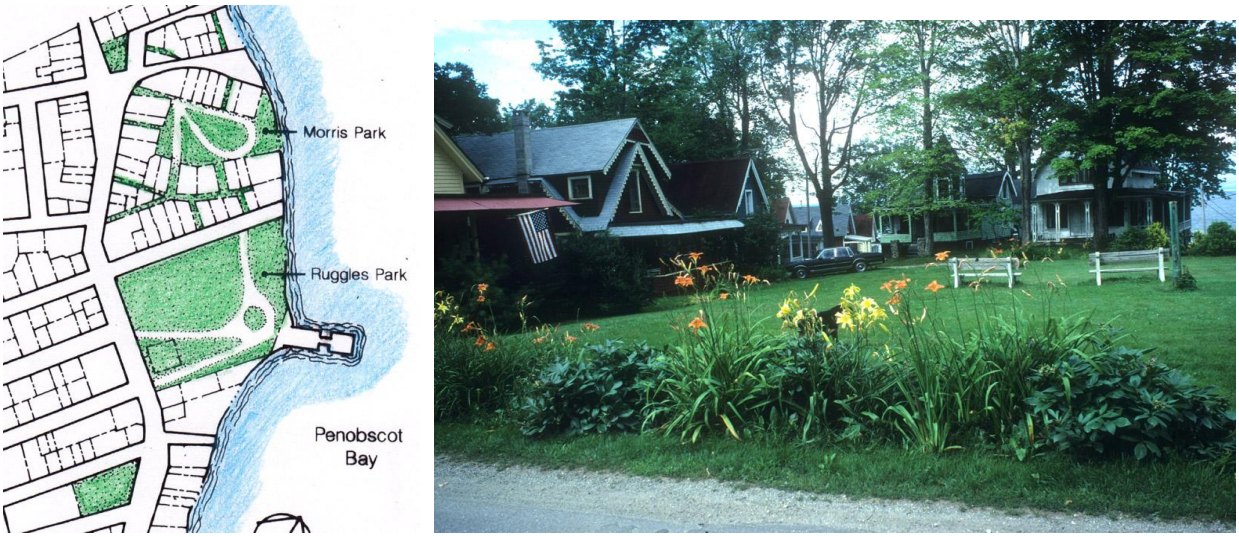


**Figure 9-1 :** Neighborhood open spaces at Bayview, in Northport Maine, include a large green bordered by two streets, offering expansive views down to Penobscot Bay, and smaller interior parcels that are well-connected to nearby streets by pedestrian passages. Perennial borders, benches, and shade trees provide additional amenities.
Sources: Arendt 2005 and RA photo

Within an urban context, developers in the 1870s created remarkable pocket neighborhoods with alley-loaded homes facing onto walkways (instead of streets for vehicular traffic) in Louisville KY and Brooklyn NY. Although the Louisville example (Fig. 8-18) was designed for upscale living, at Cobble Hill in Brooklyn Alfred Tredway White, a Unitarian deacon and housing reformer, built two rows of 15 dwellings (plus two more at each end) just 11 feet wide, in three-story structures, specifically for workingmen and their families.. Called Warren Place Mews, its rear lanes are currently landscaped with shade trees and used as informal sitting areas, while the garden in the center is formally landscaped with shrubs and fountains bordered with footpaths providing front door access to each home (Chapin, 2011).

The pocket neighborhood form reappeared on the West Coast 40 years later, continuing as multi-family worker housing with very small cottages, and often called "bungalow courts".. Rediscovered and restored by local architects 20 years ago, the 1915 Pine Street Cottages in Seattle inspired the region's planning community to adopt new single-family land-use codes meeting the state's Growth Management Act's objectives. These codes have allowed innovative single-family infill developments that serve as models for alternative housing types. It is important to note that this approach, as commonly practiced in western Washington, does not require re-zoning for each project, since the cottage court neighborhood type is typically classified as a conditional use, providing another code option for single-family detached living.

All of the examples below were built in single-family zones under *innovative conditional use codes* allowing medium density, provided that each home is limited in finished floorspace, is not taller than 1 ½ stories, and is grouped around a common green/garden courtyard with detached garages on the site perimeter. Garden courts are the type of pocket neighborhood most focused on in this chapter, where the common ground is a central green, as illustrated in Figures 9-2 and 9-3.
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**Figures 9-2:** Although homes are typically spaced very closely with minimal sideyards, their occupants enjoy pleasant views from their front windows and porches into the common, as shown in this sketch and photo of Conover Commons in Redmond WA. The courtyard is approximately 130 feet long and 50 feet wide, with 70 feet between housefronts: a perfect "outdoor room". Source: The Cottage Company and Ross Chapin - both

The defining space of a pocket neighborhood is a middle ground between the private realm of the house, the semi-public space of the front porch, and the public realm of the street or municipal park. "In our pocket neighborhoods," Chapin says, "we work to create five additional layers of personal space between the courtyard and the front door: a border of perennial plantings at the edge of the sidewalk; a low fence; the private front yard; the frame of the covered porch with a low, 'perchable' railing and a band of flowerboxes; and the porch itself. These occur within a span of about 18 ft." The trick is to arrange everything so residents can easily see into the common areas from their homes, but that others cannot see into their rooms, including next door neighbors.

Chapin believes that "Humans are gregarious by nature and, given the opportunity, will socialize. We also need some degree of personal space. Good design can achieve a balance between the two." (Chapin, 2011) Because of its location and design, the shared open space fosters casual interaction among neighbors which, in time, may grow into deeper long-term friendships". The key is an attractive, relaxing social space through which one walks every day, a place where people can hang out casually on benches or toss frisbies for their children or dogs.

**Figure 9-3:** The community greens enclosed by homes at Danielson Grove (top) and Greenwood Avenue Cottages (in Kirkland and Shoreline WA respectively) are well-suited and right-sized for enjoying outdoor meals with neighbors, and kids frolicking with each other and pets. At Danielson, the courtyard measures about 40 by 140 feet, with approximately 60 feet between opposing front porches. Source: The Cottage Company and Ross Chapin - both

For the optimum number of social interactions to occur, the best range in size is said to be between five and 16 homes, with the 8-12 range considered ideal. This range has ancient origins in human settlement design. At Chysauster, a 2000-year old Iron Age hamlet in Cornwall, eight stone dwellings described by English heritage as "courtyard houses" are arranged in pairs along a street, each with its own garden plot. (www.englishheritage.org.uk/daysout/properties/chysauster-ancient-village). The earliest intact settlement in Britain exists at the opposite end of the UK, at Skara Brae in the Orkney Islands, where ten clustered stone dwellings were discovered in 1850. Recent studies estimate it dates from about 3000 BC, during the Neolithic period (en.wikipedia.org/wiki/Skara_Brae)]. Christopher Alexander incorporated this concept in *A Pattern Language*, where he noted that *"People will not feel comfortable in their houses unless a group of houses forms a cluster, with the public land between them jointly owned by all the householders. Therefore arrange houses to form very rough, but identifiable clusters of 8 to 12 households around some common land and paths. Arrange the clusters so that anyone can walk through them, without feeling like a trespasser."* (Alexander, 1977).

Home sizes in most pocket neighborhoods tend to be modest, typically ranging from 900 to 1800 sq. ft, sufficient for couples or small families. Parcel sizes depend on the number of homes, and can vary from less than an acre to several acres. At Greenwood Avenue in Shoreline WA, for example, eight cottages and a common houses were built around a compact central green, achieving a density of about 11.5 du/ac on a ¾-a acre parcel that had formerly been two adjoining flag-lots behind two lots with full street frontage (see Figure 9-4). The relatively high densities achievable in pocket neighborhoods reduce the amount of runoff per dwelling, a primary goal of watershed planning.

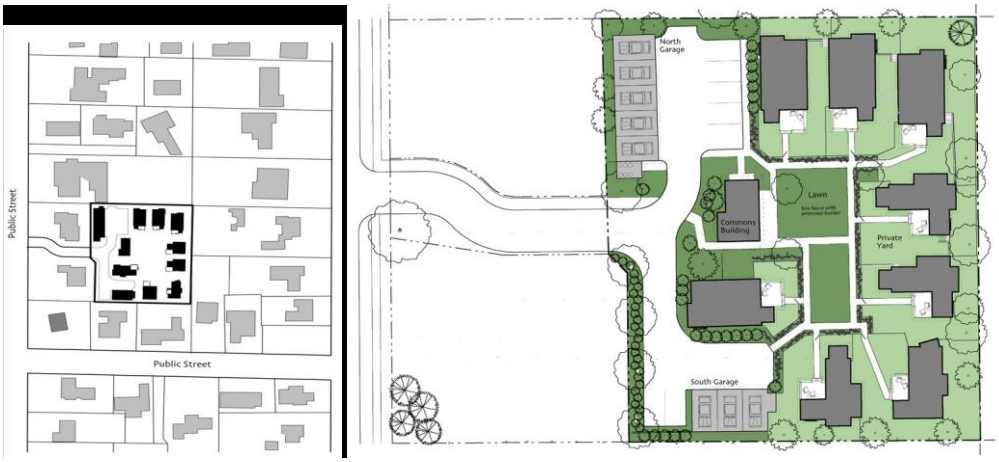


**Figure 9-4:** Site plan of the Greenwood Avenue Cottages (right), a compact neighborhood occupying a ¾-acre site within a conventional neighborhood in Shoreline, WA, within its context of surrounding houselots (left). Source: The Cottage Company and Ross Chapin - both

House prices in pocket neighborhoods can vary from affordable housing to upscale homes, as evidenced by the contrasting case examples (in Chapter 20) of the Poplar Gardens community cohousing in Boulder CO and the Chico Beach Cottages along the waterfront in Silverdale WA. At the Cottages on Greene, located one block from the main street of East Greenwich, RI, five deed-restricted affordable units were incorporated into a mixed-income neighborhood of 15 dwellings in 2011, the first bungalow court to be built in New England (Fig. 9-5). The neighborhood appears at first glance to consist entirely of single-family homes, but clever architectural designing of two duplexes and one three-family residence enables them to blend in completely. Altogether, the 15 units sit on 39,000 SF (0.895 acre), creating a density of 16.75 units/acre. Value was generated through careful attention to detail, and maintaining that value was key to building support in this upscale neighborhood. Neighbors generally welcomed the proposal also because it replaced a nonconforming auto repair garage with a softer transition to main street businesses nearby. According to architect Donald Powers, "The cottages fill an unmet need for a smaller dwelling

type, with access to both private and communal open space, which expresses the familiar image of a small house rather than the more institutional image of an apartment building or a townhouse."
http://www.cnu.org/resources/projects/cottages-greene-
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**Fig. 9-5:** One notable aspect of the Cottages on Greene infill project in East Greenwich RI is its "greenway street" that restores a pedestrian link in the town's street grid. The end buildings are two-family dwellings, with one unit facing the greenway street and the other facing Greene Street, maintaining the impression that all the homes are single-family. Source: Union Studio. Photo RA

The "pocket" nature of these embedded neighborhoods can be easily seen in the upper left quadrant of Fig 9-6 from Black Diamond WA, where homes facing onto a small internal green are served by alleys behind conventional lots which front onto subdivision streets and form the outer edge of the pocket neighborhood. Pedestrian connections, shown by colored dots, link the two together and enable residents to walk across the larger neighborhood independently of the street system.

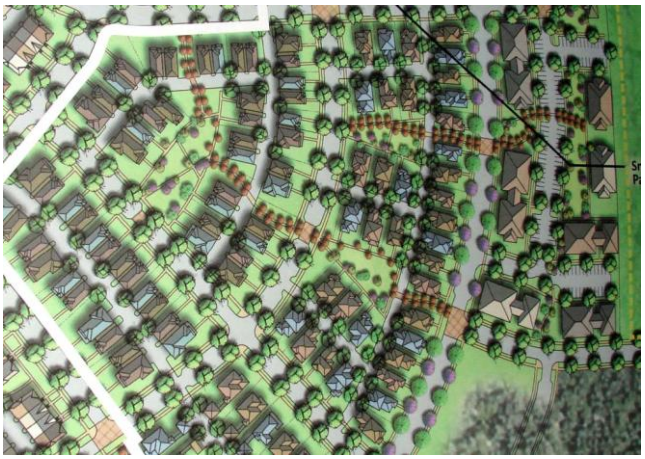

**Figure 9-6:** A pocket neighborhood (in the upper left corner above) nests within a larger conventional pattern of streets and blocks in this early sketch for a major development in Black Diamond WA, demonstrating how this concept can be employed to increase design diversity in standard new urban neighborhoods. This is accomplished by designing the alleys to serve homes fronting onto streets and also those fronting onto internal greens. Source: Lauri Fehlberg and Yarrow Bay Holdings

As defined by Chapin, pocket neighborhoods characterize the 1927 plan for Radburn in Fairlawn NJ and the 1975 plan for Village Homes in Davis CA (both described in Chapter 20). In Radburn, homes are alley-loaded and face each other across footpaths leading to the long central green, while at Village

Homes the houses back up to small neighborhood greens through which run footpaths leading to a multiplicity of parks and garden areas.

Pocket neighborhoods and community greens help reduce suburban sprawl by making urban living more inviting and enjoyable, particularly for families with children. Neighbors tend to know one another and look out for each other, improving public safety. As Chapin states, if you are six and your parents are alright with your venturing beyond the garden gate into the space just beyond it, you probably live in a pocket neighborhood.

**Essential Design Keys for Pocket Neighborhoods**
***(sidebar by Ross Chapin)***

Pocket neighborhoods, which provide well-defined personal space fostering a strong sense of community, utilize the following key elements:

**Layering from Public to Private.** Residents and visitors enter the semi-public common green through "implied gates" — near the mailbox kiosk or the parking areas. This shared garden is edged with a perennial border and a low split-cedar fence or low hedge, and the porch edge is defined by a railing built at a height right for perching. These elements define personal territory and reduce feelings of exposure when using porches and the common area. The layout of cottage interiors continue to "protect" personal territory by placing public areas in front and private areas in back and above.

**Nested Houses.** To ensure privacy between cottages, the houses 'nest' together: the 'open' side of one house (with more windows) faces the 'closed' side of the next, with a double-sized yard on one side and none on the opposite. The closed sides have high windowsills and skylights ensure privacy.

**Eyes on the Commons.** The first line of defense for personal security is a strong network of neighbors who know and care for one another. Because the houses look onto shared common areas, strangers are often more readily noticed Also, neighbors can easily notice- if daily patterns are irregular and notify emergency services if they notice something amiss.

**Corralling the Car.** To reduce car dominance**,** parking is screened from the street and located away from the cottages so residents must walk through the commons to their front doors, creating opportunities for neighborly interactions.

**The Commons.** The focal point is the central green, bounded by footpaths, with housefronts directly abutting it on all sides. The workshop space (for small projects) is located to one side, with a roof terrace for small parties. Shared garden tools are stored in the toolshed.

**Cottage Scale.** Cottages are built at 1-1/2 story height to reduce negative impacts on the surrounding neighborhood

**Individuality**. Each cottage is similar to its neighbors but unique. Each household creates its own garden landscape with gr at variations in style and plant materials.
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**Porch Rooms.** Porches should be large enough to function as rooms overlooking the central green, with off-center front doors, so traffic patterns do not bisect the porch.

**Living Large in a Small House.** A small house can feel and function like a larger one, when there is ample light and adequate storage space. Nine-foot and higher ceilings with large windows and skylights fill rooms with light, creating a perceived sense of larger space. There is ample storage with walk-in

closets, built-in shelves and attics.

## Co-housing: *A Community-Based Alternative*

Cohousing is a term for intentional, self-planned communities occupying a small but growing market segment. Many cohousing designs follow the pocket neighborhood approach. These neighborhoods are planned and created by the future residents in a highly participatory way, characterized by collaboration and consensus. In a typical co-housing community all homes are individually owned, but are surrounded by commonly-held open space often consisting of children's play areas, community gardens with individual allotments, and recreational facilities.

A common house is the heart of these neighborhoods and typically includes activity rooms, a large kitchen, and a dining room where meals are usually shared by about half the residents several times a week. The common house sometimes includes offices and guest accommodations, which allows individual homes to be smaller. Two cohousing projects are described in Chapters 20 and 21: East Lake Commons in Atlanta, and Heartwood in LaPlata County, CO.

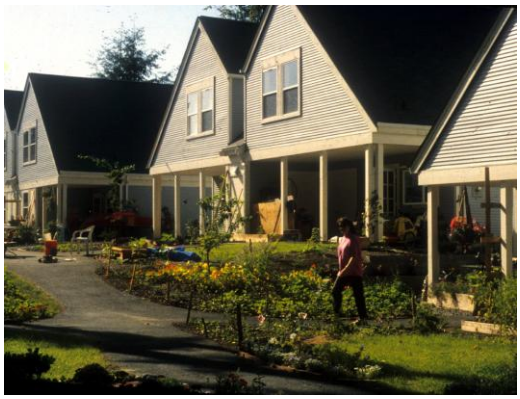

**Figure9-7:** The first cohousing neighborhood on Bainbridge Island, WA, Winslow Cohousing, was built in 1992 and consists of 30 homes, a common house, a barn, an allotment garden, and a small woodland with walking trails. Unlike many of the pocket neighborhoods, all the homes are attached as twins or multi-family, including a carriage house with six flats. Located within town, it is within walking distance of schools, library, medical clinic, shopping, parks, pool, and the Seattle ferry. (RA)

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**Figure 9-8:** Two Echo cohousing is a rural example in Brunswick Maine, with 20 single-family homes and two twins, plus a common house and various farm buildings situated on 92 acres, 72 of which are permanently preserved fields and forest. Dating from 1998, it is located ten minutes by car from downtown. Its form, designed by Terrence DeWan Associates, is more of a hamlet than a pocket neighborhood, as half the homes face either internal woodlands or open meadows. Source: Terrence DeWan Associates (both)

The co-housing concept, which originated in Denmark in the late 1960s,-was brought to Northamerica by architects Charles Durrett and his wife Kathryn McCamant. The couple visited numerous co-housing communities in that country during the mid-1980s, coined the co-housing term, and wrote the definitive book on the subject in 1987: *Cohousing: A Contemporary Approach to Housing Ourselves* (1994, 2nd edition)**.**

According to Durrett, among the defining characteristics of cohousing communities are "a balance of privacy and community, a safe and supportive environment for children, a practical and spontaneous lifestyle, intergenerational neighborhoods, and environmentally-sensitive design that provides pedestrian access and optimizes open space. Residents take responsibility for on-going management by organizing cooperatively to share in decision-making to meet their changing needs." (McCamant and Durrett, 1994).

The physical form of most cohousing communities is the pedestrian street or courtyard, with single-family or attached homes arranged around it. As in pocket neighborhoods, homes typically face each other across footpaths or modest open space. Durrett believes that while the participatory development process establishes the initial sense of community, it is the physical design that sustains it over time. Parking at the edges keeps traffic at bay and reinforces the sense of community, because everyone walks through the neighborhood and typically passes the common house on the way home from their cars.

According to the Cohousing Association of the US, the majority of such neighborhoods range in size from 20 to 40 households, but some have fewer than ten homes and others have nearly 70. Although some cohousing neighborhoods contain up to 100 adults, half that number (or 35 seniors) is considered optimal, because reaching consensus with larger populations it is often difficult to achieve. The community size must also be small enough to enable residents to discuss agenda items with their neighbors before meetings.

The average home size is 1,250 sq. ft, compared with a national average of 2,324 sq. ft. (It is notable that 1,250 sq. ft. was a typical US house size during the 1950s.) According to Durrett, "In villages, people historically worked together to build a schoolhouse, raise a barn, harvest the crops, celebrate the harvest, and more. Similarly, residents in cohousing enjoy the benefits of cooperation, whether by organizing common dinners, social activities, or caring for elderly residents. Both communities build social relationships by working together to address practical needs." (Durrett, *Senior Cohousing*, 2009) To critics who characterize cohousing as merely a niche, Durrett replies that "If something is not a niche, it is generic, and not good."

**Figure: 9-9:** Of the 11-acre cohousing site in Nevada City CA, six acres have been preserved through the compact arrangement of 34 homes that face each other across a footpath, Radburn style.. The open space includes an organic vegetable garden, orchards, chickens, and woodlands with trails leading into town Source: Charles Durrett – both

The first cohousing community in the United States was Muir Commons, built in 1991 in Davis, CA. This neighborhood is organized around a long narrow central greenway space. Efficiently providing sites for 26 homes on a 2.9-acre site, it is a model for compact infill housing in parts of communities where undeveloped land is at a premium. The community is landscaped with predominantly drought-tolerant and native species. Outdoor features include a garden, an orchard, children's playground, lawns, and several "social nodes" designed to promote interactions among residents. Unlike most subsequent cohousing neighborhoods where homes were built to be sold at market rate, Muir Commons was designed, built and sold to meet the city's affordability standards, usually housing 40-50 adults and 30-40 children. Homes are economical and compact, ranging from 800 to 1,380 SF. Houses can be smaller than usual because the common house provides space for a number of activities: meal preparation, dining, enjoying a quiet evening before a fire, laundry, exercise, and ~~a~~ children's indoor play, plus an office and a guest room. Among the other shared facilities at Muir Commons are a 900 square foot shop for woodworking and automotive repair, bicycle sheds, and a hot tub.

Unlike Muir Commons, EcoVillage at Ithaca (EVI) provides market-rate housing and lies at the other end of the urban-rural spectrum, preserving 90 percent of its 175-acre site as open space. Two 30-home cohousing neighborhoods have been created, and a third is in construction stage to provide more accessible, affordable, and energy-efficient homes (where heating costs will be 80 percent lower than average). Among its notable features are an independently owned, community-supported, organic vegetable farm (West Haven Farm) and a similar pick-your-own berry farm, several community gardens, and a neighborhood root cellar in addition to the natural conservation areas. In 2013 a 10-acre incubator farm was created for low-income beginning farmers. Also, office space for small businesses is available for use by residents. A special feature of EVI is its nonprofit educational component, the Center for Sustainability Education (CSE), offering accredited courses for beginning farmers and a summer course in sustainable farming land local food systems. Notably, CSE, in collaboration with the Tompkins County Planning Department, has received a three-year grant from the USEPA to evaluate the lessons learned from two decades of development experience at EVI and to apply those lessons to three model residential developments in the county. (Walker, 2005)

**Figure 9-10:** The homes at EcoVillage are grouped into two neighborhoods, the second of which features a small central green.(left). Roughly one-quarter of the homes have back yards looking out over a small pond (right). As can be seen in both photos, most of the homes enjoy open space views from their back windows and decks, compensating for their smaller lots. (Sources: Jeffrey Gilmore; James Bosjolie)

Roughly one-quarter of the homes have back yards looking out over a small pond. In this relatively linear hamlet, most of the homes enjoy open space views from their back windows and decks. Source: Jeffrey Gilmore and James Bosjolie

One of Durrett's greatest insights is that, like pocket neighborhoods, cohousing can be incorporated into larger, conventional developments, and that doing so "energizes the whole". In other words, cohousing is not limited to stand-alone sites, but can be designed as an integral part of otherwise standard neighborhood plans, broadening housing choices and helping to mainstream this innovative concept.

### Senior Cohousing

Senior cohousing is a variant of particular relevance as baby boomers age. Special features of cohousing design for seniors include easy access for all levels of physical ability and sometimes studio living quarters in the common house for home health aides serving multiple residents. Senior cohousing seems to work best with 15-25 residences, resulting in community sizes somewhat smaller than that for intergenerational cohousing. A notable example of the "saging community" concept of senior co-housing is Silver Sage, where 16 homes are situated on a three-quarter acre site in Boulder CO, enveloped within a new urban neighborhood known as Holiday. This pocket neighborhood is within walking distance of a small grocery, bus stop, offices, and a restaurant and is grouped around a landscaped courtyard with a 5,000 SF common house designed with space for a kitchen, dining area, guest rooms, and rooms for crafts and performances. (Chapin, 2011) In Grass Valley CA, located in the Sierra foothills, a new senior cohousing community called Wolf Creek Lodge provides 30 accessible units for active adults (mostly over 55) where they can age in place, in a highly energy-efficient 3-1/2-story building. This community is within walking distance of two large grocery stores, two department stores and other retail stores, several banks, a pharmacy, a fitness club, and many restaurants.


**Figure 9-11:** Site plan of the Wolf Creek cohousing neighborhood in Grass Valley CA. A three-story Lodge for active adults is in the upper left corner, and to its right are the attached intergenerational units of Freeman Lane Commons clustered around a central green. Eight single-family lots back up to wooded open space. Source: Charles Durrett

This cohousing site covers nearly nine acres, one-third of which is permanently protected conservation land, including 1,000 feet of frontage along Wolf Creek. A second neighborhood called Freeman Lane Commons will provide intergenerational housing with 32 energy-efficient townhouse units clustered on 2.5 acres. Each house will have its own small private yard and porch fronting onto an outdoor common gathering place designed for community activities and near the Common House, community gardens, a rock pool, and a workshop for hobbies and automotive repair. (Durett, 2009)

## Affordable Housing

### Overview

According to the National Low Income Housing Coalition, nearly 95 million Americans, or 35 percent of households, had a housing affordability problem in 2005, a number that rose during the Great Recession. Because the topic of affordable housing is so broad, no attempt is made here to cover it comprehensively. Instead, a more selective approach focuses on topics relevant to small towns where standard "affordable housing projects" might not be popular. Fortunately, many methods are available to provide housing for those not financially able to purchase their own homes.

One could begin thinking about this issue by asking two questions. First, how many graduates attending

their fifth or even tenth high-school reunion could afford to purchase a house in their own community today? Second, how many couples do you know whose grown children are returning home for lack of affordable housing? Middle-class people have rarely considered their family members as needing "affordable housing," but old stereotypes are rapidly changing.

When altruistic arguments fail to move people, one may appeal to their "enlightened self-interest." The future of their community will be profoundly influenced by the availability (or lack) of housing for local schoolteachers, firemen, police officers, and the general wage-earning work force. Put simply, jobs and ultimately commercial property-tax revenues**,** are at stake. When a successful publishing firm in rural Deerfield, Massachusetts decided to open a second plant, it chose to do so in the Midwest because its wage scales could not keep pace with the rapidly accelerating housing prices around their rural New England headquarters.

The grim reality is that housing is not affordable to many people unless they already own a home, which they can trade for another. And, in the wake of the worst economic downturn since the Great Depression, many homeowners lost all their equity, as the value of their homes fell below the amount owed on their mortgages. Without home equity, a family trust fund, or two very high salaries, most people today are unable to qualify for mortgages, even at low rates. In many parts of the country house price inflation has outpaced salary increases, widening the affordability gap.

One common thread among several successful projects described in this book is the use of building design to fully integrate affordable units among those sold at market rate. Examples include Wyndcrest (Sandy Spring MD), St. Albans (Davidson NC), Lincoln Meadows (Lincoln MA), and Cottages of Greene (East Greenwich RI). This approach benefits residents by avoiding situations where affordable homes are obvious, and makes it easier for local officials to promote and approve such proposals.

**Figure 9-12:** The mixed-income Battle Road Farm project in Lincoln MA (where half the units are affordable) reflects traditional New England architectural forms, with many homes arranged around a central green (see also Chapter 20). Source: William Rawn Architects RA photo

To assure affordability beyond the first buyer (who could otherwise realize a windfall profit when selling the unit), some states (e.g., California) require developers to grant deed restrictions that limit resale prices for 30 years or longer. In New England, both Maine and Rhode Island have laws enabling town governments and nonprofit housing groups to control resale prices, typically through covenants (White, 1993). Similar strategies are further discussed in the sections on Davidson NC and on community land

trusts, later in this chapter.

### Affordable Housing in a Small Southern Town

The affordable housing approach taken by Davidson NC (population 10,944) is a small-town success story with potential for replication elsewhere. It was conceived during a moratorium following a high-growth period in the early 1990s, in a visioning process to determine what people meant when they said they wanted the town to continue looking like itself, rather than change radically. Although many concerns involved the physical appearance of streets and neighborhoods, and the loss of open space, another arose from the recognition that many existing residents would not be able to afford to live there if they had to buy a home at current prices.

Local leaders realized that the traditional diversity of people in town was an important community asset that was at risk, as most new homes cost far more than salary levels for local policemen, firefighters, teachers, nurses, and librarians would allow. To help persuade a skeptical public, staff put real faces on the statistics and included photographs of a firefighter chief and a school principal as examples of the kinds of local people who would be eligible for affordable homes. This pro-active stance for inclusionary housing is essential if we are to build caring, "complete communities" where people who provide municipal services and others at their economic level can afford to reside.

In the mid-1990's Davidson formed an affordable housing committee and the nonprofit Davidson Housing Coalition (DHC) to address the issues. To hasten progress, the town amended its ordinances in 2001 to require a mixture of housing types and prices in every neighborhood, recognizing that single-family developments decrease diversity. From then on, it has been Davidson's official policy to actively discourage development targeted at only one socio-economic group. The affordable housing ordinance of 2001 requires that 12.5 percent of new dwellings be built and sold in the affordable range, based on federal income guidelines. Unlike many other communities, Davidson does not offer density bonuses. Developers either provide the housing as a project component, or they pay a fee in lieu. Developers may opt out of the minimum required percentage by making a payment-in-lieu of $69,400 per affordable unit (**2013** figures) to the affordable housing fund. This is equivalent to the sale price of a dwelling for a household of four with a household income less than 50 percent of the area median income, and whose mortgage payment is 23 percent or less of its total income.

Funds totaling $225,000 from these fee-in-lieu payments were given by the town in 2007 to Community Housing Partners (a national non-profit housing agency with headquarters in Richmond VA) to help with the purchase and renovation of 73 very low to moderate income rental units, which opened in 2012.

Another progressive requirement is that the design of affordable units must harmonize with neighbors and be dispersed throughout the community. Town policy is that these sites should be supported by public transit or at least by pedestrian and bicycle facilities that connect them with workplaces, shops, schools, community facilities, and parks. Long-term affordability of for-sale units is ensured through deed restrictions on the property for 99 years. To ensure continued affordability, deed restrictions permit original purchase prices to be increased only by the percentage change in the area median income.

The land trust created by the DHC reduces initial housing costs by 25 to 30 percent and retains title to the land when the house is sold. These deed restrictions contain a resale formula that provides a fair return to unit owners who share in part of the appreciation. This formula also ensures that the units will be resold at a price affordable to future income-qualified households. In both programs, households may remain in an affordable unit even if their incomes later increase. To prepare people to manage their own finances and to assume responsibility for home ownership, town government partners with the DHC to conduct courses on

home ownership. Applicants receive free individual counseling and are accompanied to banks by staff who help them secure mortgages and protect their interests.

Four of 15 brownstone townhouses are affordable at Harbour Place, a mixed-use development containing shops and offices near Exit 30 on I-77, The developer used the payment in lieu program to build two additional units (at $61,000 each) elsewhere. Thirty-two new rental units were generated through the charrette process, required by the town for all major developments, planned with broad community support and built near the town center in 2000 at the Bungalows project. It is occupied by renters earning 50 percent or less of area median income (the lowest income category) and received a Maxwell Award from the Fannie Mae Foundation in 2002.

**Figure 9-13:** The six-unit residence (left), built on Park Street, was modeled on an older house on Jackson Street-(right), whose owner allowed the Davidson Housing Coalition**'s** architects to measure it to create a multi-family house similar to a large single-family home. This design was used twice at the Bungalows, on opposite sides of the street, creating a dignified gateway to this moderate-income neighborhood. It has also been used once on Potts Street. Source: Kris Krider (both)

At Creekside Corners, the DHC built 13 rental units in addition to two new single-family houses for sale. In 2006, it built a triplex rental in the bungalow style, adding two two-bedroom units and one three-bedroom unit to this property. Three years later it renovated the historic Ralph Johnson House, adding a one-bedroom unit and a three-bedroom unit to the complex.

**Figure 9-14:** Affordable single-family units near Harris Teeter grocery, along Jetton Street (left). The Davidson Housing Coalition, a local affordable housing nonprofit, built this affordable fourplex which fits seamlessly into the surrounding neighborhood at Creekside Corners. Duplex units are situated to its left and right, built in compatible styles. Source: Kris Krider and Marguerite Williams

At Summers Walk. a large development involving four phases, 30 single-family affordable homes were built on 24-foot lots by the developer, as required by the planning ordinance. Additional affordable units are required and will be built in later project phases. Resident amenities include a 3,300 SF clubhouse, three pools, a dog park, and walking trails. The homeowners pay only 14 percent of the standard HOA fee per year.

The 48-lot Deer Park neighborhood is part of a mixed-use development that will ultimately contain a business park, retail space, a hotel and conference center, restaurants, and an 11-acre public park with walking trails around Lake Davidson. Ten single-family homes were developed and sold there by the DHC in partnership with local builders, using the land trust model. As a result of creative financing, partner commitments, and several local initiatives, these homes initially sold in 2003 for $90,000 to income eligible homebuyers, compared with up to $145,000 for the market rate houses.

The DHC is planning to build 24 apartments in eight cottages (similar to those in the Bungalows neighborhood) on 2.24 acres of land donated by a developer. It will be known as Bailey Springs.

**Figure 9-15:** The developer of the St. Albans infill neighborhood (left) complied with Davidson's wishes that a number of affordable units not only be provided, but also be integrated physically and not set apart. The design solution was to insert them between market-rate units in townhouse formations, shown above, as was also done at Wyndcrest, noted later in this chapter. In 2006 Davidson College built eight units of attached affordable homes for staff and faculty in an L-shaped building bracketing a small neighborhood green with a large willow oak tree (center). The other side of one of the two wings faces Main Street, with a modest front setback (right).. Ultimate plans call for a second L-shaped building to create a quadrangle and a courtyard. Source: Marguerite Williams (left), Kris Krider (center and right)

## Density Bonuses that Really Work

In communities with vibrant housing markets and strong political leadership, such as Davidson, developers have demonstrated that they will build affordable units without density bonuses, simply to remain active in such highly competitive and lucrative markets. However, most communities do not enjoy such advantages and, without density bonuses, affordable housing will generally not be built by developers.

In some states, such as Massachusetts and Rhode Island, state laws enable developers to substantially increase their unit count by allowing them to build additional units beyond those allowed under the local zoning density and by allowing them to build apartments in single-family districts, provided that 25 percent of the units meet affordability criteria. In RI, developers may request approval of a "comprehensive permit" for the development provided that at least 25 percent of the units meet affordability criteria. As density *per se* is not regulated, some developers propose as many units as the land can physically accommodate, but most do not press those upper limits, wishing to avoid needlessly hostile confrontations. This regulation is administered through the local planning board which is empowered to provide all necessary approvals, including variances from zoning requirements such as density, setbacks, development standards etc.

Not surprisingly, many municipalities resist such proposals, partly because the cost of providing schooling to the increased numbers of pupils from these units far exceeds the property tax revenue the homes produce. Some sites selected for such proposals are environmentally constrained and difficult to develop conventionally without utilizing the affordability option. However, in denying such applications, Massachusetts municipalities risk being over-ridden by state housing appeals courts. Rhode Island's State Housing Appeals Board has authority to determine if local denials comply with one or more of five criteria spelled out in the RI Low and Moderate Income Housing Act. Only communities where at least ten percent of the housing stock meets affordability criteria are exempt from these laws, and three-quarters of municipalities are not exempt. In addition, all municipalities in RI must incorporate an affordable housing plan into their comprehensive plan, articulating how the community anticipates meeting state goals.

Despite exceptionally strong state leadership, and the fact that this law has been responsible for about 80 percent of affordable homes built in Massachusetts beyond the major cities, affordability remains a critical issue in both of these New England states, where housing prices are considerably above the national average. The shortage of affordable housing exacerbates the natural tendency of workers to move farther away from jobs in search of less expensive housing, adding to sprawl and air pollution.

In states without such bold programs, and even in those with them, there is a more direct and effective potential solution, and that deals with the way density bonuses are offered. Although the theory behind density bonuses is sound, in practice this technique is used relatively little. The theory is that because developers earn only very small (or zero) profit margins on homes priced below market rate, they must be enticed with extra density to include lower priced homes among their standard offerings. . Two ways of encouraging developers to create workforce housing are to not count those units toward the density limit, and to increase the number of market-rate units that are allowed.

The problem is that many, if not most, developers fear that including less expensive homes in their subdivisions will hurt their bottom line by discouraging sales or depressing sale prices on their market-rate units. Typically, the opportunity to increase the density does not compensate for their concern over the potentially lower return on their investment. As long as a density bonus remains voluntary, this situation is likely to continue. A simple solution involves changing the bonuses from being voluntary to being mandatory. In what has been dubbed "the density bonus from the Godfather movie" (one that cannot be refused), Montgomery County MD became the first jurisdiction in the country to adopt a mandatory, inclusionary zoning law containing a density bonus to developers for providing affordable housing. Faced with this mandate, developer Joseph Alfandre decided to visually integrate the required workforce units into his Wyndcrest infill neighborhood in the rural village of Sandy Spring (Figure 9-16). This approach of seamlessly incorporating affordable units among market-rate dwelling has also been taken at the Cottages on Greene infill development in East Greenwich RI and in the St. Albans neighborhood in Davidson NC.

**Fig. 9-16:** At Wyndcrest, in Sandy Spring MD, an infill project containing 27 dwellings in Montgomery County, four affordable homes are cleverly integrated into the whole as the two middle units in each of two four-unit buildings facing each other across a central green. The larger end units are market rate, as are the detached homes that frame the two multi-family buildings. Casual passersby are unaware that any of the units are affordable, but closer examination revels that the middle units are narrower, less tall, lack roof dormers, and have no side windows. When they were first built, the middle units sold for slightly less than half the price of the end units, and for slightly less than one-third the price of the detached houses. (RA)

The county's Moderately Priced Housing Program, which began in 1974, requires that between 12.5 and 15 percent of the total number of dwellings in every subdivision of 20 or more units be moderately priced, and rewards developers with density bonuses of up to 22 percent. The program works because participation is not optional. Rental units are subject to rent control for 99 years and sale units are subject to price control for 30 years, with a portion of the appreciated resale price going into the Housing Initiative Fund. In its first three decades, this program added 12,000 affordable units to the county's housing stock. While this is significant, the program meets only a small portion of the waiting list need. Also, when the economy slows and the program is needed even more, production dwindles. That said, the program is a very notable achievement and has harnessed the economic engine of the private development sector without the need for large public subsidies.
http://www.montgomerycountymd.gov/dhctmpl.asp?url=/content/dhca/housing/housing_P/mpdu/history.asp

Although selling prices softened in many areas during the Great Recession, a substantial affordability gap still exists in many communities, across which creative bridges must be built. The balance of this chapter discusses some of these "bridges": compact neighborhood layouts, two-family house design, multifamily dwellings, community involvement, accessory dwellings, preserving affordability, "affordable limited development" (including a land conservation component), and mixed uses.

## Compact Neighborhood Layouts

It does not seem obvious until it is said: "The reason our housing problem doesn't go away is because we keep raising our standards" (Peter Salins, quoted in Knack, 1988). The standards to which this Hunter College professor was referring are not those that are essential to public health, safety, and welfare, but rather those that have crept in quietly as communities grew in size and wealth. There was, and still is, nothing wrong with the type of (affordable) housing produced in vast quantity for returning GIs and others after World War II. For the most part, these modest homes (typically 1,000 SF, on 9,000 SF lots)

were well constructed and had all the necessary infrastructure: properly paved streets, public water and sewer, sidewalks, and occasionally, even small neighborhood parks. This is probably the type of housing that was bought by the parents or grandparents of many readers of this book. Good luck to the builder who tries to provide a similar product today: in most suburban and rural communities where zoning is geared to the minimum typical size (and expectation) of an 1,800 SF house (or larger) with an attached two-car garage.

Perhaps the most effective way to reduce development costs associated with new housing is to trim lot sizes and increase density. Studies have shown that buyers are generally more willing to give up land area than to give up floorspace or construction *quality*. As mentioned in Chapter 1, the National Association of Realtors' 2013 *Community Preference Survey* found that most respondents are willing to accept smaller lot sizes if they can improve their accessibility to jobs, shops, restaurants, and parks. (National Association of Realtors, 2013) Since the 1960s, minimum legal lot sizes have typically doubled for fully serviced lots (from 9,000 square feet to about one-half acre) and have risen from one-half acre to two acres (or more) for lots with wells and septic systems. While some of the size increase for unserviced lots is based upon sensible environmental considerations, similar necessities have generally not governed lot-size inflation in areas served by central water and sewerage. In both cases there is often considerable potential to reduce lot areas and expensive street frontages. Reducing lot widths from 125 feet to 75 feet, for example, can cut road and utility costs by about 40 percent.

### Affordable Home Designs in Neighborhood Development and Redevelopment

Many architectural firms offer a selection of designs for affordable homes suitable for cost-efficient narrow lots, and among those that have created the widest variety of elevations and floor plans is TightLines, in Raleigh NC. This firm specializes in that product, and also embraces the tenets of conservation neighborhood design when the opportunity arises. Thirteen of its designs are for homes that are 22 feet wide, or slightly less. Several models containing nearly 1,200 SF are shown in Fig. 9-17. When served by rear lanes, these homes can be located on lots only 35 feet wide. Larger versions are available up to about 1,550 SF, gaining a foot or two of width in the process (http://www.tightlinesdesigns.com).

Sixteen of these models have been built in the Cooke Street neighborhood redevelopment project in Raleigh, NC, completed in 2006, maintaining a traditional streetscape blending both market-rate and affordable homes. This area, located at the edge of downtown, had previously been blighted with run-down houses, vacant lots, and crime, much like the Garden District neighborhood in Deland FL, described below. This approach can be replicated in many communities of various sizes across the country.

In this example, the neighborhood was selected for redevelopment by the Community Development Department which purchased the land and conducted community forums to define goals and objectives including a mix of incomes and compatibility with the adjacent historic neighborhood.

As the original lots varied in size, the land was resubdivided into 46 lots to create consistency and increase density. Because lots were deeper on one side of the street, homes could be set back nearly 50 feet from the curb, allowing construction of a broad sidewalk with shade trees planted on both sides, creating a pleasant greenway effect. According to architect David Maurer, "This greenway was a major factor in the desire to create a community that promoted neighbor interaction. Today, kids can be seen riding their bikes and moms pushing strollers. The ample front porches are well used, and almost all of the homes have the living room in the front of the house, further encouraging 'eyes on the street." This two-block stretch of Cooke Street is now home to an annual themed carnival held in mid-October featuring live music, food and art vendors, local businesses, and activities for adults and kids.

**Figure 9-17:** Two blocks of Cooke Street in Raleigh NC have been transformed with new affordable infill housing sensitively designed by TightLines, which worked with city staff to create a mini greenway effect by increasing front setbacks and utilizing the reclaimed space for wider sidewalks and a double line of shade trees on one side of the street. The Monique model is shown in the center. Source: TightLines.Designs Inc.

In the absence of alleys, garages were side-loaded, with shared driveways reducing impervious surfaces. To increase the amount of usable yard space in small-lot developments, creative site designers are beginning to locate houses off center, toward one of the front lot corners. The greatest efficiencies are achieved when homes are built at the minimum front setback and directly against one of the side lot-lines ("zero lot-line"). In this way, both side yards are effectively combined on one side of the house, forming a reasonably proportioned outdoor space, far more useful than two skinny sideyards (see Fig. 9-18). To conserve privacy while still admitting daylight, such homes are typically constructed with clerestory windows (having sills above eye level) on the wall closest to the side lot line, facing the next door neighbor's yard.

**Figure 9-18:** This double sideyard, created by siting homes off-center on their lots, offers more outdoor living space than the two stringbean yards typically associated with narrow lots. (RA)

The primary target audience for such housing includes empty-nesters, childless households, small families, singles with or without children, and people who would rather spend minimal time mowing lawns and maintaining yards. Success lies in paying close attention to architectural design, site planning, and shade tree planting, all essential for producing pleasing results at higher densities.

Responding to a local realtor's website seeking people willing to invest in a run-down neighborhood of modest but architecturally-rich 1920s-era homes close to the center of Deland, FL (population 27,250), designer Michael Arth recognized its underlying potential and eventually purchased 32 seriously deteriorating houses. Restoring them over a seven-year period, he greatly enhanced the neighborhood by planting numerous trees (many donated by the City as an expression of support and gratitude), and by building pedestrian lanes, gardens, courtyards, and bike facilities. This effort, which included banishing drug dealers who had been using abandoned homes as crack houses, earned him neighborhood admiration

and respect, plus a number of awards. This area is now commonly referred to as Deland's' "Garden District".) http://michaelearth.com/garden_district.htm

**Figure 9-19:** Two vernacular cottages restored by Michael Arth, who reclaimed a slum neighborhood just a few blocks from Deland FL's principal street, Woodland Avenue. (RA)

As houses become slimmer (and usually deeper), to fit onto narrower, cost-efficient lots, the proportion of the house facade consumed by garage doors grows larger. For example, on a 45-foot lot with a home measuring 35 feet across, more than half the facade would be two-car garage door, presenting a boring, lifeless aspect to the street. And on an affordable house that is 22 feet wide, a garage door for two cars consumes the entire building width, making it unfit to face the street, and appropriate only for alleys. One solution favored by an increasing number of development designers is to move parking and garage spaces to the rear of these lots with access through alleys or lanes (typically 12 feet wide, with one-way traffic flow). Many of the older suburbs around major cities (except in the Northeast) were built this way during the early 20th century. Their "curbside appeal" stems partly from the fact that the view from the street is "all house." Back lanes are a staple of new urban neighborhood design and stand the test of time best when planted with shade trees creating a verdant swath along rear lot lines (see Fig. 12-13). To prevent narrow homes being built with front-facing garage doors overwhelming street facades, communities can require side- or rear-access garages on lots less than 50 feet wide.

**Figure 9-20:** Front-facing garage doors never enhance a home's appearance, but totally overwhelm smaller, affordable homes less than 40 wide, as in this example from Carmel IN (left). However, this unfortunate situation is easily remedied by locating

garages at the back ends of the lots, as shown in this house of the same 22-foot width produced by Southgate Development of Iowa City IA (right). (RA both)

It should also be noted that providing adequate neighborhood open space becomes even more important when lot dimensions are reduced. Although some extra backyard area can usually be created by moving homes closer to front lot line (creating "dooryard gardens" ten to15 feet deep, measured from the sidewalk), that is no substitute for designing special areas for walking the dog, having a game of catch, playing informal games, or participating in more organized sporting activities.

A number of homes are arranged around a central green in Middletowne Arch, a 188-home development of for-sale affordable single-family housing serving moderate-income families in Norfolk, VA. Designed by UDA Architects and developed by the Norfolk Redevelopment and Housing Authority, the semi-circular street bounding the park is paralleled by two other curving streets. Responding

**Figure 9-21:** At the heart of Middletowne Arch, a mixed-use development in Norfolk VA designed by UDA Architects, is a neighborhood green positioned to enhance terminal vistas. Source: UDA Architects

to suggestions made at community meetings, UDA consciously patterned this layout after the Mobray Arch neighborhood of Norfolk's historic Ghent district, laid out in the 1890s. "The success of Middletowne Arch encouraged the revitalization of the area, which demonstrates that developing affordable middle-income housing can be an effective way to stabilize neighborhoods." (http://www.designadvisor.org/gallery/middletowne.html). Another notable example of affordable housing being designed around neighborhood parks can be seen in the case study of Austurbruin, in Silverdale WA, in Chapter 20.

Dollar figures for the cost savings achievable through more compact residential development designs have been documented by the National Association of Home Builders (NAHB, 1986). For example, on a 166-acre parcel near Canton OH, site development costs per dwelling were one-third less for the more compact layout, which left 20 percent of the property as open space, compared with 6 percent open space in a conventional layout involving the same number of homes (472). . New neighborhoods with 60-foot lot widths (compared with 100-foot widths) are proportionately less expensive to create, in terms of land and infrastructure costs. However, the cost savings from further lot width reductions are often outweighed by the additional costs of providing alleys. It is difficult to generalize any more than this due to differentials in land and labor costs in different locations.

## Two-Family Homes: Fitting in Better

Well-designed two-family homes can become a significant part of a community's affordable housing strategy. Their size lends them easily to single-lot infill situations, where they can be assimilated into a neighborhood. For obvious reasons of scale, this is not as true for multifamily structures, unless the individual units are modestly proportioned and the surrounding homes are large.

Two-family homes help owner-occupiers to defray their mortgage payments and property taxes. Buying a two-family home, and treating half as an income-producing property, is a time-honored method for young couples seeking a toehold in the housing market and wishing to build ~~their~~ equity. Many people have gained their financial ability to buy a fully detached house by first purchasing a "twin" as their starter home. Two-family homes also enable renters to live in traditional neighborhoods as part of the community mainstream. Many would prefer this to living in large apartment complexes surrounded by acres of asphalt parking, which are often located on the outskirts of town or adjacent to a highway.

One trick in making two-family housing blend in with single-family neighborhoods is to design the buildings to look like large single residences. Perhaps the most visible indication of duplex status is the side-by-side pair of front doors facing the street. Although the door pair can be concealed by locating one door under a porch roof (as depicted on the right in Fig. 9-23), or by placing the doors on the left-and right-hand sides of the building, perhaps the best arrangement is to create a large central entrance on the front facade, together with a secondary entrance on another side of the building. This is the approach shown on the left in Fig, 9-23. This two-family home, disguised as a large single-family house from the late 18th century, contains a two-bedroom unit with 1,164 square feet on the left half and a three-bedroom unit with 1,356 square feet on the right, in a compact upstairs-downstairs arrangement with 1/2 baths for each family. (Other examples of this can be seen in the case study of Old York Village (Chesterfield NJ) in Chapter 22, and in Figure 4-13 from Chestertown MD.)

**Figure 9-22:** Two relatively recent examples, from Sheridan WY (left) and Dover DE (right), show how differently semi-detached homes can be designed. Although both are in neighborhoods without alleys, necessitating front access, garage doors totally dominate one, and are visually subordinated on the other. (RA both)

**Figure 9-23:** Two-family homes can be both affordable and attractive, as shown in this design by William Thompson AIA. Scaled to resemble a large 2,500 sq. ft. single-family residence, the building unobtrusively accommodates its second front door as a side entrance (an arrangement not uncommon on older homes in New England). Another approach is to use porches to visually subordinate the two front entrances, as seen in this example from Eagle CO (where paved footpaths lead to each doorway). Source: William Thompson AIA and RA photo

In addition to avoiding closely-spaced door-pairs on the front elevation, architectural design guidelines should address basic issues such as roof shape and pitch, building massing/width/height, window size/proportion/ spacing, exterior materials, and parking (which should be inobtrusive). If retention of traditional character is desired, the content of such standards should be related to photographs of historic double-houses in the area. In most states it is probably not possible to regulate the aesthetics of building design outside historic districts. However, local land-use laws could be amended to offer attractive density bonuses to applicants who agree to design their two-family homes according to special zoning guidelines and performance standards. Developers would be free to apply or not, and as the standards would be tied to the bonus, mutual benefits would accrue from this voluntary action.

Actually, there is no reason why all two-family approvals could not be made dependent on construction following certain design standards. However, applicants must also be allowed to build single-family homes without design restrictions, albeit at the standard density without any "duplex bonus." In other words, an individual with enough land to build four single-family homes might be allowed to build three double-houses (with six units), representing a 50 percent density bonus, provided that certain design standards are met. In this case, each duplex lot would be 1.3 times as wide as a single-family lot, to accommodate the extra parking and yard space needed for the two families.

The scale of density bonuses needed to encourage compatible architectural design and sensitive site planning will vary among different localities. Although in many communities a density of seven units per acre may seem extraordinarily high, it certainly can be accomplished in a manner that is a credit to most neighborhoods. As illustrated in the pocket neighborhood section of this chapter, densities half again as high as this are achievable with small single-family detached homes.

Zoning regulations often need to be refined to permit double-houses on reasonably sized lots (some communities have adopted inappropriate standards, either requiring no lot area increase, or requiring twice the lot area). The most reasonable course lies between those two paths.

### Multifamily Dwellings

Much of the preceding text regarding two-family homes is equally applicable to multifamily dwellings, where the principal difference is scale. Due to their larger size, multifamily dwellings harmonize best when located in areas where homes are above average in bulk, or are located on a separate site where immediate comparisons are impossible. One clever approach is **to** design multiunit housing to resemble

large single-family homes, as has been done at Park Street in Davidson, noted above (Fig. 9-13). A similar approach was taken by William Rawn, an award-winning Boston architect who recognized the potential of the classic New England "connected farmhouse" to accommodate several dwelling units, described below.

These long, rambling structures, which gradually evolved during the mid-nineteenth century, represent successive additions to the basic homestead and are recalled in the children's chant "big house, little house, backhouse, barn" (Hubka, 1984). Another approach is to combine single family units at the ends of buildings, with rowhouse units in between, as done at Wyndcrest in Sandy Spring MD (Fig. 9-16). A third way is to create interesting facades by varying the architectural treatment in terms of color and/or materials, also as done at Wyndcrest.

Determined to avoid the image of apartment buildings or townhouses in his Battle Road Farm project in Lincoln, Massachusetts, Rawn adapted the lines of traditional rural New England architecture, and added long porches on many of his structures. (See Fig. 20-10.1 and 20-10.2 and the case example in Chapter 20). Although the subject of much debate during its proposal stages, the final design was overwhelmingly approved by voters at town meeting. According to Rawn, "The plan neutralized the opposition because no longer could they say ‘This is ugly’ " (quoted in Leccese, 1990). Perhaps most amazingly, he achieved this construction for just $54 per square foot in the Boston suburbs in the late 1980s.

One of the most commendable aspects of this project was the initiative of local officials, who believed the town should actively promote affordable housing. By taking the first step itself, Lincoln was able to select the most appropriate site and influence its design, rather than commenting on an ill-conceived site plan presented by a developer in a less suitable location.

After purchasing the Battle Road Farm parcel for $2 million, town officials published an RFP in the *Boston Globe,* inviting qualified professionals to submit conceptual plans for competitive review. Site information and a short list of development principles (e.g., that the project be designed to harmonize with the town's traditional rural character) were made available by the town.

Of the 120 units at Battle Road (in a combination of quadruplexes and duplexes), 72 were priced at roughly 50 percent below market rates. Subsidies from the Home Ownership Opportunity Program, administered by the Massachusetts Housing Partnership, enabled these units to be virtually indistinguishable from the other 48 full-priced ones, erasing the image of publicly assisted housing as "cheap and undesirable." In addition, a Community Development Action Grant helped to defray infrastructure construction costs (Massachusetts Housing Partnership, 1989). Another interesting feature is the protection of seven acres of the 31-acre site as permanent open space, including a network of walking trails looping through the woodlands and connecting with the town-wide trail system.

Communities wishing to exercise more control over the location and design of new affordable housing could emulate Lincoln's example. When advocating for affordable housing, officials benefit from knowing that producing sensitive designs and mixing market-rate units with subsidized ones can soften opposition. However, it may be even more useful to cite the conclusions of property value impact analyses, such as the statewide survey in Maine and the national study conducted by the state of California. In both cases, researchers "found that there are no significant negative effects from locating affordable housing near market-rate developments" (Peterson and Sternberg, 1990). Research published by the online journal *Shelterforce* indicates that many of the common fears about affordable housing are either overstated or simply wrong. It concludes that “if affordable housing is well designed, fits in with the surrounding neighborhood, and is well managed, there appear to be no negative impacts of that housing on the property values of neighboring houses”
http://www.shelterforce.org/article/2891/fear_of_affordable_housing_perception_vs._reality/

## Accessory Dwelling Units: A Hidden Resource

One of the potentially best---but typically overlooked--- opportunities for communities to accommodate new growth is the accessory dwelling unit (ADU), or granny-flat (~~and~~ "secondary suites" in Canada). This traditional housing type requires no additional land and normally involves little or no change to the existing townscape. The steady decrease in average household size in recent decades has made such housing easier than ever to provide for two reasons: many empty-nester homeowners have more room than they need and the number of people looking for small apartment space has risen markedly.

Accessory dwellings are complete and separate housing units typically created in the surplus space within single-family homes or on their lots. They may take the form of internal apartment units within existing houses, or they may be located above garages or in small cottages on the same houselot, often toward the rear. Their principal benefit to homeowners is rental income, but there are others, including ways to provide for relatives, added security, companionship, and the possibility of receiving rent reductions in return for providing services (such as yard maintenance of household help). (Sage Computing, 2008)

These benefits can help older homeowners age in place in comfort, single parents remain at home after a divorce, and young homebuyers buy a house they might otherwise be unable to afford. ADUs typically create affordable rental housing integrated into the community without public subsidy. Surveys show that homeowners with ADUs are generally pleased with them (Hare, 1991).

If this sounds too good to be true, that's because it is in fact a dream that is rarely realized in most municipalities. The problem is not cost, technology, or administrative complexity. Rather, it lies largely in our codes that either prohibit or make it exceedingly difficult for homeowners to create accessory apartments in their houses or on their properties. Communities interested in encouraging the use of accessory units should first take a critical look at their local codes. It may also be necessary to inform homeowners, remodeling contractors, and realtors about the advantages of such conversions, as many of them have little experience in creating new units of this type.

Demand for accessory apartments has grown in recent decades, particularly as the demographic bump known as the baby-boomers reaches retirement age. Most empty nesters and many elderly people live in homes that are larger than they actually need. Accessory apartments offer them a way to trade surplus space for extra income, money that many retirees need to offset rising property taxes and to cover routine maintenance costs. Or these empty nesters, particularly if widowed, could become renters of ADUs owned by others, enabling them to stay within their communities.

The implications of tapping this great stock of underutilized housing are tremendous. The American Housing Survey estimated that one-third of single-family homes with five or more rooms are occupied by only one or two people. If just seven percent of these homes were converted, Hare estimates that one million new accessory dwellings could be created *without* adding to suburban sprawl or building new apartment complexes. This is truly "invisible affordable housing", as exterior appearances usually involve little more than an extra car or two parked in the driveway or on the street. (Hare, 1991)

Young couples unable to purchase a house without creating an income-producing apartment could be the largest single group implementing this concept (Gellen, 1985). Housing advocates interested in promoting ADUs could provide a coordinating service to assist applicants dealing with permits, contractor selection, tenant screening, etc. (Kennedy, 1992).

The cost of creating accessory apartments.is roughly one-third that of building conventional rental units, making it possible to charge lower rents. These savings could enable families to help young married

children save money to buy their own home or help elderly relatives live independently, yet conveniently close, at bargain rates. Even when they are let to non-family members, accessory apartment rents are often below-market rate because it is in the homeowner's interest to retain good tenants, whose presence adds to their safety.

One difficulty involves parking, particularly in areas where houselots are small and/or where there is no spare capacity for curbside parking. However, most postwar subdivisions in small towns or rural areas were laid out in a relatively spacious manner, often with broad local access streets far wider than needed for existing traffic volumes and parking loads. In these and many other situations, substantial potential exists to accommodate these new units (Fig. 9-24).

**Figure 9-24:** The far end of this early nineteenth-century house in Hadley MA was sensitively extended in 1990 to include a connected apartment and garage. Income from the accessory dwelling repaid the entire 15-year loan that financed this addition. Accessory units make more efficient use of already developed land and provide inobtrusive rental accommodation for people who prefer to live in a real neighborhood setting in their own community. In the bottom photo, space above this garage in Snohomish WA was converted from a large workshop to an accessory unit in 2008, without affecting the streetscape or neighborhood. Source: RA and Mark Hinshaw

One impediment to creating accessory apartments involves overcoming fears of local officials and residents that this type of housing would negatively impact neighborhoods. Another is the reluctance of homeowners to file an application in a system they perceive to be bureaucratic or unfriendly. Hare offers a six-point strategy for addressing these concerns:

**Public Input** Providing ample opportunity for the public to be heard is critically important. Requiring full-blown public hearings in all cases could, however, add delays and discourage elderly applicants who are often reluctant to appear in the municipal spotlight. Streamlining the process may be accomplished by delegating decisions to staff for action within two weeks from receipt of a complete application, unless neighbors request a hearing.

**Renewable and Revocable Permits** Permits should be renewable and revocable and issued to the property owner, not to the property itself. The owner should also be required to live on the premises. A revocation clause provides strong incentives for all requirements to be observed, and renewals should be assured if requirements are met.

**Exterior Appearance** Permitted alterations to exterior appearance should be minimal and should never detract from the character of the neighborhood (particularly regarding doorways and parking.)

**Conversion Ceiling** The percentage of homes that may be converted in a given area should be limited. Initial limits (say, 10 percent of properties within 300 feet of an existing accessory unit) could, for example, be gradually relaxed after a ten-year trial period.

**Zoning Review** Periodic review (including soliciting neighbor comments) and subsequent renewal should be written into the zoning amendment authorizing accessory dwellings If the amendment is repealed, units legally created under its authority should be "grandfathered" and remain subject to the original requirements and permit conditions.

**Neighborhood Evaluation** Neighbors must be reassured that valid complaints will be heard, by soliciting evaluations from them (via comment cards mailed to their homes) prior to permit renewal.

Because of the time and energy typically required to address the fears of homeowners concerned about their property values potentially declining, advocates of revised zoning should focus their efforts on more receptive municipalities and document a track record with such housing. Where nearby communities already permit ADUs, their experience should be cited. Short application processing times are critically important since applicants are ordinary citizens, inexperienced in zoning and real estate matters. (Hare, 1991) Readers can access an excellent online case study at http://www.huduser.org/Publications/PDF/adu.pdf

## Preserving Affordability through Community Land Trusts

Community land trusts (CLTs) are a special type of land trust focused on creating affordable housing and maintaining its affordability. They typically achieve this goal by removing (or reducing) land costs as a factor in determining housing rental and sale prices. This is normally done by purchasing land with their own private funds (sometimes supplemented by public monies) and making it available at reduced or zero cost to qualified buyers. It can also be accomplished by negotiating with local governments for zoning density increases, which are typically tied to use of the land for a specific number of subsidized housing units.

This approach is also being used by some local and state housing authorities, which subsidize the land costs of full-market housing prices to bring units within the economic reach of more people. For example, if the 25 percent of the house value is the cost of the land, fully subsidizing that cost allows purchasers to buy the house for 75 percent of its normal market price However, to ensure the unit's continued affordability for future purchasers, the original buyer would receive the same 75 percent of the market value when he or she sells it.

While this is an excellent mechanism for preventing the first buyer from pocketing the subsidy and converting the unit into a market-rate dwelling, it has drawbacks. The most obvious is that program participants may face the same "affordability gap" when they sell their units and move to another community without similarly subsidized housing. In other words, this approach does not allow people to rise up into full middle-class status. This might not be a problem for people who remain in their homes until they become "empty nesters," who seek to trade down to smaller dwellings. Nor would it be a problem for people whose household income increases during their time in the subsidized unit. However, for others, finding another home in a different community could be very difficult.

Clearly, it is impossible to have it both ways: either the units remain affordable with the sellers receiving only the same proportion of value they originally contributed (which is fair), or the units' sale prices (and their owners' equity) rise with the market, denying other potential owners the opportunity to purchase the property at a reduced rate.

Recognizing this dilemma, some programs modify their approach. The simplest method allows the owner/seller to receive full value after 10 or 20 years, with adjustments figured proportionally for people who sell before the period ends. A more complex but possibly fairer approach relates the owner/seller's

proportional share of the market rate sales price to his or her income level at sale time.

A good example of a project that preserves affordability is Misty Meadows in Amherst, Massachusetts (Figure 9-25). This neighborhood contains a combination of housing types (12 two-family and 17 single-family homes) and a mixture of subsidized and market-rate units (in a 40 percent to 60 percent ratio, respectively). The fact that the subsidized units were sold to owner-occupiers and were not rentals helped to reduce the social stigma normally associated with projects such as this (Massachusetts Housing Partnership, 1989). The site design utilized Amherst's cluster option to locate the homes on half the land normally required for this number of units, creating a jointly owned seven-acre central open space which most homes abut. In addition, the project involved town participation in purchasing an extra 97 acres of the original farm as open space, including 15 acres of arable farmland, 40 acres of wetlands, 12 acres for passive recreation, and a 15-acre future school site. The state covered 80 percent of the land acquisition costs.

**Figure 9-25**: Affordable homes are grouped on half the Misty Meadow project site to conserve seven acres of land in Amherst MA (left). The community land trust on Lopez Island WA has created several workforce housing projects, including Morgantown, seen here (right).

The first successful community land trust affordable housing project in Washington was completed by the Lopez Community Land Trust in 1992 on Lopez Island (population 2200), one of the San Juan Islands in Puget Sound. Named Morgantown, it consists of seven houses and is located within the main village on the island. Homeowners worked 24-30 hours per week for 28 weeks as their sweat equity contribution, which was supplemented by labor donated by volunteers and university interns. Since then, the trust has completed four additional projects containing 32 more homes, all within the state-designated urban growth area. The two most recent ones were designed at net-zero principles, balancing energy production and consumption, utilizing passive and active to supply the needs of the highly-insulated homes. All of these neighborhoods include small house footprints and beautiful gardens, and most of them harvest their rooftop rainwater for irrigation purposes.

Another branch of the land trust movement involves "land conservation trusts" (usually called simply "land trusts"), whose principal objective is to protect natural lands and working landscapes from development. Over the last decade a growing number of land trusts have discovered the advantages of broadening their purview to include affordable housing provision. One of the ways that land trusts protect land is by designing "limited developments," where a reduced number of high-priced houselots are sold (typically) to affluent commuters or second-home buyers, with the majority of land remaining open and permanently protected through perpetual conservation easements. This approach is taken when there is a shortfall of funds either to purchase the land or to establish an endowment fund to cover ongoing costs (such as maintenance, liability insurance, and property taxes).

The most obvious way for land trusts to help lessen the growing housing crisis is to create several

affordably priced houselots each time they prepare a subdivision plan for "limited development" (Rubenstein, 1989). Because this type of development is normally designed well below legally permissible maximum density, there is no problem with adding several extra units to the plan. However, because the principal goal of such subdivisions is to limit the amount of land that is developed, the extra units would normally be carefully sited on smaller lots.

Employing the principles of conservation subdivision design, creative planners and landscape architects should find it relatively easy to accommodate some additional affordable homesites. Instead of designing five very high-priced building parcels (where perhaps 24 would normally be allowed), a land trust could create three at the high end of the scale and three or four toward the lower end. Done skillfully, no more land would be taken out of natural or agricultural use than if five high-end lots were created, as the less expensive lots would be smaller than the pricier ones.

Benefits would flow both ways. New housing affordable to local people would become available, and land trusts would be seen as caring as much about the human resources of their area as they do about the natural resources. Because conservation of buildable land in areas with tight housing markets reduces the total acreage available for construction, critics argue that land preservation pushes up new houselot prices. To the extent that this is true, the greatest impact is probably on local people at the lower end of the economic spectrum. When land trust supporters are sensitized to this situation, and when they are shown a relatively easy way to help provide for some of the local housing need.

Vermont leads the nation in its programs combining land conservation and affordable housing. In just four years, the Vermont Housing and Conservation Board (VHCB) maintained or created more than 2,000 units of perpetually affordable housing, while protecting over 40,000 acres. Notably, these two objectives have been combined relatively infrequently on the same property, which can enable the affordable lots to be created closer to community centers.

## Affordable Conservation-Based Housing: *Conservation Fund Examples from North Carolina and Colorado*

The Conservation Fund, a national organization which has protected more than seven million acres in all 50 states over the past 26 years, has become increasingly concerned about the widening gap between household incomes and housing prices. Responding to this problem, the Fund created the Resourceful Communities Program to address the need for conservation-based affordable housing. This program operates through local and state-level land trusts to engage affordable housing providers to design new neighborhoods combining low and moderately priced homes with quality open space

The Fund advocates a balanced approach to land conservation that integrates economic and environmental objectives, recognizing that communities are sustainable only when they provide good jobs, adequate housing, and a strong sense of place derived from local natural and cultural resources. (Briechle, Kendra, 2006). Case studies from North Carolina and Colorado follow.

**Prosperity Ridge, Kannapolis, North Carolina:** Among the several dozen projects initiated or assisted by the Fund are several in the state of North Carolina, where Fund staff have collaborated with a number of local community development corporations (CDCs) and the Conservation Trust of North Carolina (CTNC). For example, at Kannapolis, in Cabarrus County, the Prosperity Unlimited CDC own a number of potential housing sites with varying degrees of potential for incorporating a land conservation component.

One of them, which the author helped to design in 2007, involved a mostly unwooded parcel of gently rolling terrain. An engineered layout had been prepared but was not what the CDC wanted for the property, which contains a number of free-standing specimen trees, a small hardwood grove, and another area of mixed forest on lower ground. An old farm lane connecting the upper and lower sections of the property is now a walking trail. The approach taken differed from the engineered approach both in substance and in style. Instead of being presented with a layout created on a computer screen without client participation, the hand-drawn sketch was generated during the course of an extensive site walk with the principal project partners discussing opportunities for siting homes and saving land at virtually each step along the way. This collaborative approach, where the client's input was solicited while everyone was experiencing the opportunities and constraints of the site, was equally important to the CDC, which wanted to be a true participant.


**Figure 9-26:** Conservation subdivision design prepared by the author for the Prosperity Unlimited CDC in Kannapolis NC, and author sketching another affordable housing conservation subdivision for the Blue Springs CDC in Hoke County NC, pictured here with CDC executive director Christina Davis McCoy. Source: The Conservation Fund.

In its 2006 study on conservation-based affordable housing, the Fund identified 16 successful affordable housing projects ranging in size from fewer than a dozen homes to more than 1,200, spanning the spectrum from urban and suburban to rural settings. The project profiles provide details on design, financing, land protection and stewardship, where the conservation acreage ranged from ten to 1,500 acres. Except for two urban infill sites, all of the projects saved more than half the land involved. (Briechle, 2006)

**Wellington Neighborhood, Breckenridge, Colorado:** An 85-acre site annexed by the town of Breckenridge CO provides 98 units of affordable housing and 24 market-rate homes. It was designed to conserve 21 acres as permanent open space with 100-year old blue spruce trees, access to hundreds of miles of paved bikeways, and trails linked to the adjacent White River National Forest.

The Wellington neighborhood is located on a historic gold dredge-boat mining site at the edge of town that was used for six decades to process river rock for precious metals, a process that destroyed riparian habitat and left 30-foot-high piles of waste rock. The project also included a significant restoration element, paired with the public purchase of 1800 acres of former mine lands. In exchange for acquiring the unpolluted land to preserve as back-country open space and saving it from being subdivided into large-lot sprawl, Breckenridge and Summit counties assumed responsibility for cleaning up the acid mine runoff that was polluting French Gulch.

When a local developer expressed interest in acquiring 85 acres from the mining company to build much-needed affordable housing, the City agreed to annex the land into its jurisdiction from the county and to

rezone it from one-unit-per-acre density to allow for nearly 100 units of affordable homes. In addition it reduced street and alley width standards, waived water tap fees, and subsidized the sewer connection. The mining company transferred all of its proceeds from the land sale to the US EPA to help fund the environmental assessment and site remediation.

In terms of affordability, eighty percent of the homes are reserved for people who work at least 30 hours per week in Summit County, although the first phase was not subject to income-qualifying requirements. To maintain affordability over time, for future owners, resale appreciation is limited through private deed restrictions to the percentage increase in the area's median income, or three percent, whichever is greater. The homes were actively marketed to municipal employees and other qualified applicants.

Located within easy biking distance (less than one mile) from downtown shops and services, Wellington was designed to provide a distinct urban edge. In addition to preserving approximately 13 acres of private open space (including five acres with century- old blue spruces and frontage along French Creek) and eight acres of public open space, the project incorporates many new urban design elements including five neighborhood greens, large front porches, rear alleys, short front setbacks from 20-foot wide streets, and public open space. Homes are designed to reflect vernacular building styles from the region's past. Gridded streets connect neighborhood homes surrounding grassy courtyards with parking behind the homes.

### Mixed Uses, or Living "Above the Shop"

Allowing (or even requiring) certain types of new commercial structures to be combined with housing is a promising idea. Because the most inflationary element in housing costs is land value, it therefore makes sense that one could provide housing at close to zero land cost if it were built as additional stories above nonresidential uses that are economically self-sustaining without extra income from rental housing.

Since much of the retail and office space currently being built in many communities occupies single-story structures, it would not be difficult to add another floor or two to accommodate new apartments or condominiums. The economics of installing elevators become less challenging when the cost savings of using the foundation and roof of the original single-story building for several additional floors, is factored in.

**Figure 9-27:** Several residential units are located on the second and third floors of the Hobble & Hayes Building at the edge of downtown Winslow WA, above a variety of retail shops and services (left). In the center, workforce housing has been provided above shops in Vail CO where land values and housing prices are beyond the reach of many local employees, demonstrating that the air rights above single story buildings have become too valuable to be ignored . On the right, live-work units, such as these at Eagleview in Upper Uwchlan Township, PA, have sold well, with professionals and artisans living above studios and offices. However, in relatively few units do the workers live above their own workplaces. Instead, most units are rented or leased to different parties. Although things have worked out differently than originally expected, the buildings do provide a

mixture of uses and the neighborhood is more diverse. (RA left and center, and Hankin Group – right)

Although the mixed-use approach is not appropriate everywhere, it should be strongly encouraged in town centers and other areas where a variety of goods, services, and jobs are available within convenient walking distance. Three excellent examples of affordable housing located above ground-level commercial uses in historic buildings in downtown locations are the Lenox Flats and Gold Dust buildings in Missoula and the Acme Building in Billings MT (Gold Dust is further described in Chapter 23). http://www.homeword.org/our-properties/

Besides offering the opportunity to create profitable housing at below-market rents, the central location of such units in downtown areas could enable some tenants to save on the costs of owning and maintaining a second car, estimated by the AAA to be $9,151 in 2013, for a medium sedan driven 15,000 miles/year. Therefore, by simply owning one less car, households can increase their disposable income by that amount, enabling many of them to purchase a home they would not have otherwise been able to afford. Put another way, people who live and work in a central location, and who are able to walk or ride a bike to their jobs, can have the opportunity to boost their home purchasing power by applying their transportation savings to their monthly mortgage payments. Also, the same upward boost would apply to renters, who would have more disposable income if they could live in a centrally located apartment at below-market rates, and walk, ride a bike, or take a bus to work.